

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number: 14-108

PROJECT INFORMATION

Project Title: Rodeo-Chediski Rx Burning – McCleve Block

Region and Game Management Unit: Region I – Unit 3C

Local Habitat Partnership Committee (LHPC):
• Show Low

Was the project presented to the LHPC?
YES[X] **NO**[]

Has this project been submitted in previous years? YES[] **NO**[X]

If Yes, was it funded? YES[] **NO**[] → **Funded HPC Project #(s):**

Project Type: Prescribed Fire

Brief Project Summary:

Application of prescribed fire through broadcast burning to reinvigorate forage production, consume deadfall and control invading alligator juniper trees in the Rodeo-Chediski Fire area.

Big Game Wildlife Species to Benefit: Elk, Mule Deer, White-tailed Deer and Turkey will benefit by improved forage conditions and maintenance of edge type habitat which provides feeding areas adjacent to areas of cover.

Implementation Schedule (Month/Day/Year):

Project Start Date:

March 2015 (spring burning) or
Oct./Nov. 2015 (fall burning)

Project End Date:

November 2015 (this block will likely be burned during one event, however it may take 2 years for the right burning conditions to be met)

Environmental Compliance:

NEPA Completed: Yes[X] No[] N/A[]

Projected Completion Date: February 22, 2012

State Historic Preservation Office - Archaeological Clearance:

Yes[X] No[] N/A[]

Projected Completion Date: August 11, 2014

Arizona Game and Fish Department EA Checklist: N/A[]

To be Completed by: Paul Greer

Projected Completion Date: February 2015

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 54,240

Cost Share or Matching Funds: \$ 54,240

Total Project Costs: \$ 108,480

PARTICIPANT INFORMATION

Applicant (please print):
Paul Greer

Address:
2878 E. White Mountain Blvd.
Pinetop, AZ 85935

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Telephone: (928)358-8905

Date: 8-22-2014

AGFD Contact and Phone No. (If applicant is not AGFD personnel):

Project has been coordinated with:

Ed Collins – Lakeside District Ranger

Dave Reisner – Fire Management Officer – Lakeside RD

Mike Cothrun – Fuels AFMO – Lakeside RD

Charlie Denton – Wildlife Staff – Lakeside RD

NEED STATEMENT – PROBLEM ANALYSIS:

During June and July of 2002, two separate human-caused wildfires grew together to become what was, at the time, the largest wildfire in Arizona history. The Rodeo-Chediski (R-C) Fire burned in a mosaic pattern which greatly enhanced the deer and elk habitat in the southern half and north central portion of Game Management Unit 3C as well as on the adjacent White Mountain Apache Reservation which bounds Unit 3C to the south. The removal of large amounts of dense ponderosa pine canopies in areas where burn severities were high created an abundance of open areas across the R-C burn area. As a result, herbaceous forage production as well as browse species production and abundance increased considerably from pre-fire conditions. Robust stands of Fendler ceanothus (commonly referred to as buck brush) established throughout the burn area especially in areas with shallow rocky soil conditions such as hillsides, slopes and canyons. Ceanothus provides a key staple in the nutritional requirements of the Unit 3C mule deer herd as well as an important forage component for the 3C elk herd from late fall into early spring. Other browse species such as cliffrose have become well established in areas within the burn where soil types are favorable for this species. The mosaic burn pattern of the fire resulted in a dramatic increase in the amount of "edge" type habitat which benefits many game species including deer, elk and turkey by providing foraging areas in close proximity to hiding and thermal cover. The large removal of timber also contributed to an increase in ground flow to many of the natural springs within the unit, further improving water distribution for wildlife. The deer population has increased substantially in Unit 3C and on the White Mountain Apache Reservation as a direct result of the favorable habitat conditions that resulted after the R-C fire. The elk population has also benefitted greatly from the improved habitat conditions. As a result of the improvements to the mule deer population in Unit 3C, the AZ Game and Fish Commission changed the deer management status from standard to alternative in Units 3A/C in order to manage for an older age-class of bucks harvested, higher hunt success and higher buck to doe ratios.

Over the last 12 years, wildlife habitat in the R-C burn area has gradually changed. Trees burned in 2002 have fallen which increased the amount of fuel for uncontrolled wildland fire. Emergent alligator juniper, oak and pine trees have begun to invade desirable open areas created by the fire which will adversely affect the abundance and amount of forage grown (see attached photos). Most important to deer and elk habitat, the robust stands of ceanothus have decreased in vigor resulting in poorer nutritional quality. Left unburned, these stands of ceanothus will become decadent and provide little value to elk and deer. In order to maintain the abundance and vigor of the ceanothus stands within the burn area, fire should be applied to the area between 10 to 15 years after the first fire entry. In this area, the first entry was 2002 with the R-C Fire. Research has shown that Fendler ceanothus will respond to fire by increased production of stem growth on burned plants as well as increased germination of seeds in the soil seed bank after exposure to heat from fire. Prescribed fire will also be necessary to maintain open areas created during the R-C Fire that have resulted in the substantial increase in forage production from the pre-fire conditions. Without fire, these openings will become choked out by the already regenerating gambel oak, alligator juniper and ponderosa pine resulting in decreased forage and habitat conditions.

PROJECT OBJECTIVES:

Maintain the positive effects of the wildfire through prescribed burning:

- Maintain the abundance and vigor of the existing browse stands
- Enhance the herbaceous forage diversity and production
- Reduce forest fuels and densities of emergent juniper and oak trees to sustain open areas
- Reestablish a natural fire disturbance regime
- Improve upland watershed conditions

PROJECT DESCRIPTION AND STRATEGIES:

This HPC project is part of the larger landscape scale R-C Fire prescribed burn project which covers 148,222 acres across the Black Mesa and Lakeside Ranger Districts south of Highway 260 in Unit 3C. Due to many limitations, both biological and social, it will not be feasible to apply prescribed fire to the entire project area within one grant cycle. In an effort to ensure that the benefits of prescribed burning are evenly distributed across the project area, multiple burn blocks have been identified within the project area based on existing habitat conditions within each block. In fall of 2014, the Black Mesa Ranger District will conduct the first prescribed burning in the R-C area in the Bear Springs or Bunker burn blocks using grant money from a Rocky Mountain Elk Foundation PAC Grant. The intent of AGFD Region I, in partnership with the Black Mesa and Lakeside Ranger Districts, is to annually seek funding through the HPC grant process and other grant opportunities in order to apply fire to one block, or several smaller blocks, at a time. The determination of which blocks to apply prescribed fire to will be affected by status of archaeological clearances, livestock grazing pastures, watershed management, spotted owl and goshawk management requirements and location of burn blocks already treated.

The McCleve burn block was identified in coordination with the Lakeside Ranger District as ready to apply broadcast prescribed fire. Archaeological clearance has been obtained and the area was selected in cooperation with AGFD and Lakeside Ranger District staff. The perimeter of the McCleve burn block was designated using existing forest roads in an effort to reduce the need to construct fire lines which are costly and require mitigation efforts after the block has been burned. The prescribed fire prescription will be to achieve low to moderate fire intensity across the burn block in an effort to ignite ground fuels as well as ladder fuels without allowing fire into existing canopies, so that no new high severity burn areas are created.

PROJECT LOCATION:

Apache-Sitgreaves National Forest south of Pinedale, AZ

Township 10N Range 19E and Township 10N and Range 20E; multiple section numbers

McCleve Burn Block – 2,712 acres

See attach maps.

LAND OWNERSHIP AT THE PROJECT SITE(S):

(if the project area is private property, please state specifically and provide the landowner's name)

- US Department of Agriculture, Apache-Sitgreaves National Forest, Lakeside Ranger District

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or
LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?*
YES[] NO[] N/A[X]

HABITAT DESCRIPTION:

Ponderosa pine forest type intermixed with gambel oak and alligator juniper woodland. Average elevation within the burn block is 6,900ft.

ITEMIZED USE OF FUNDS:

Acres to burn (McCleve burn block): 2,712

Cost to apply and monitor broadcast prescribed fire: (including preparatory work on fire perimeter) to McCleve burn block: **\$108,480** (\$40/acre)

Special Big Game License Tag Funds

Prescribe 2,712 acres @ \$20.00/acre (50% total cost) includes:

Salaries for permanent seasonal funded fire employees	\$34,000
OT for travel and monitoring	\$12,440
Per Diem costs for off district employees	\$ 5,000
Firing equipment and supplies	\$ 500
ATV/UTV (fuel and maintenance)	\$ 300
<u>Dozer/Transport costs used for site prep/implementation</u>	<u>\$ 2,000</u>
Total	\$54,240

Cost Share or Matching Funds

Forest Service Non-Cash Contribution

Prescribe burn 2,712 acres @ \$20.00/acre (50% total cost) includes

Salaries permanent employees	\$45,000
Vehicle use and fuel	\$ 8,140
<u>Archeologist 4 days to locate and map known sites in burn block</u>	<u>\$ 1,100</u>
Total	\$54,240

\$145,453 has been spent by the Apache-Sitgreaves National Forest to complete NEPA requirements in order to allow prescribed fire in the R-C project area

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

- US Forest Service Lakeside RD – preparatory work on fire lines / mitigation around cultural resource sites, implementation and monitoring of burning activities, cultural resource clearance, and NEPA compliance

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?

YES[] NO[X] N/A[]

PROJECT MONITORING PLAN:

Photo points will be established in selected areas of the project area to document pre and post project vegetative conditions. Helicopter surveys for elk and deer are conducted annually to monitor population trends and sex ratios.

PROJECT MAINTENANCE:

HPC grant funding combined with other funding sources will be sought as needed to apply broadcast prescribed fire to all of the burn blocks identified in the R-C Fire Prescribed Burn Project area. In order to maintain the benefits of this project, each burn block should have a re-entry of prescribed fire 10 to 15 years after the first entry of prescribed fire in that block.

Figure 1: Overview of McCleve Burn Block

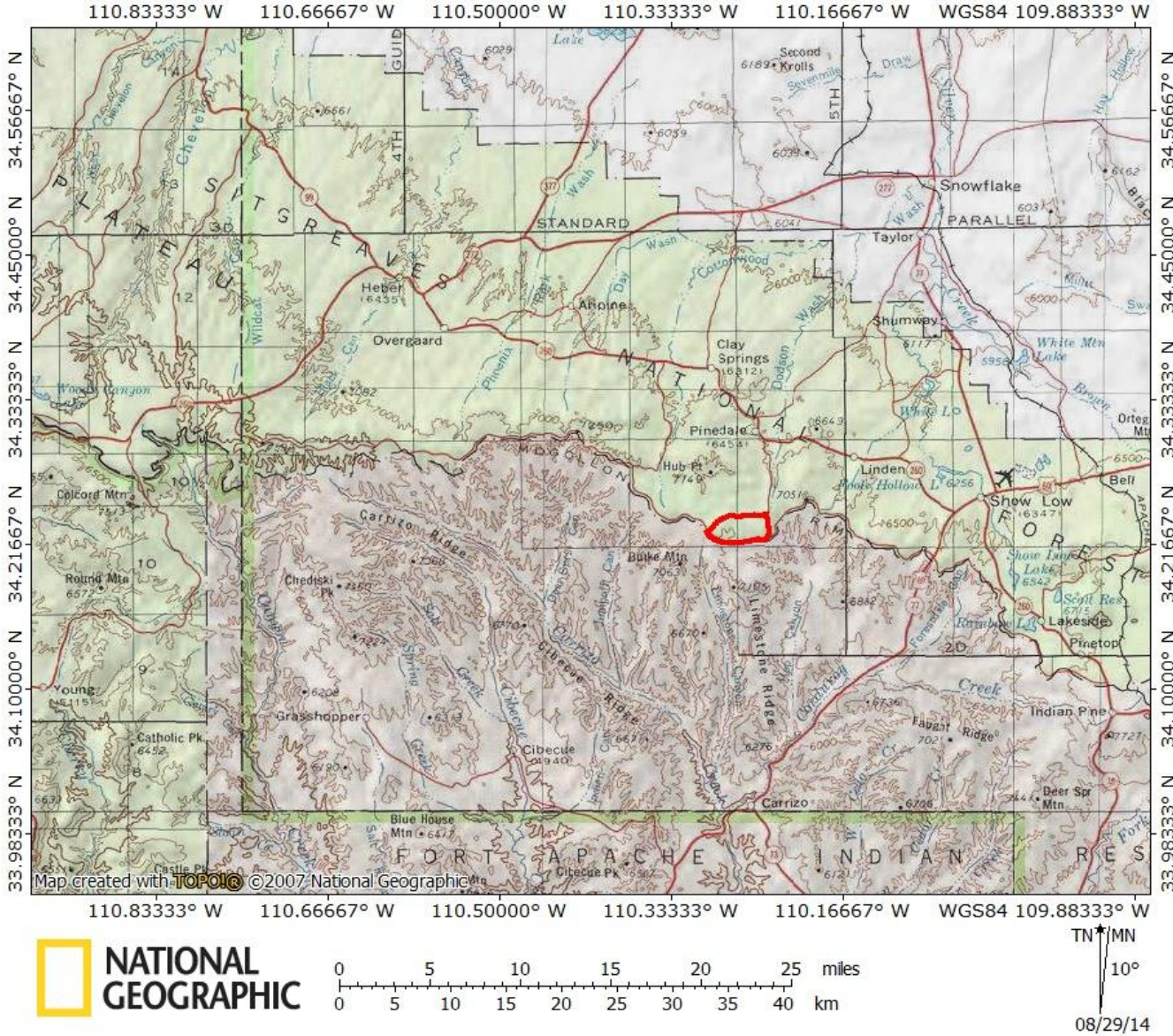


Figure 2: Topographical Map of McCleve Burn Block

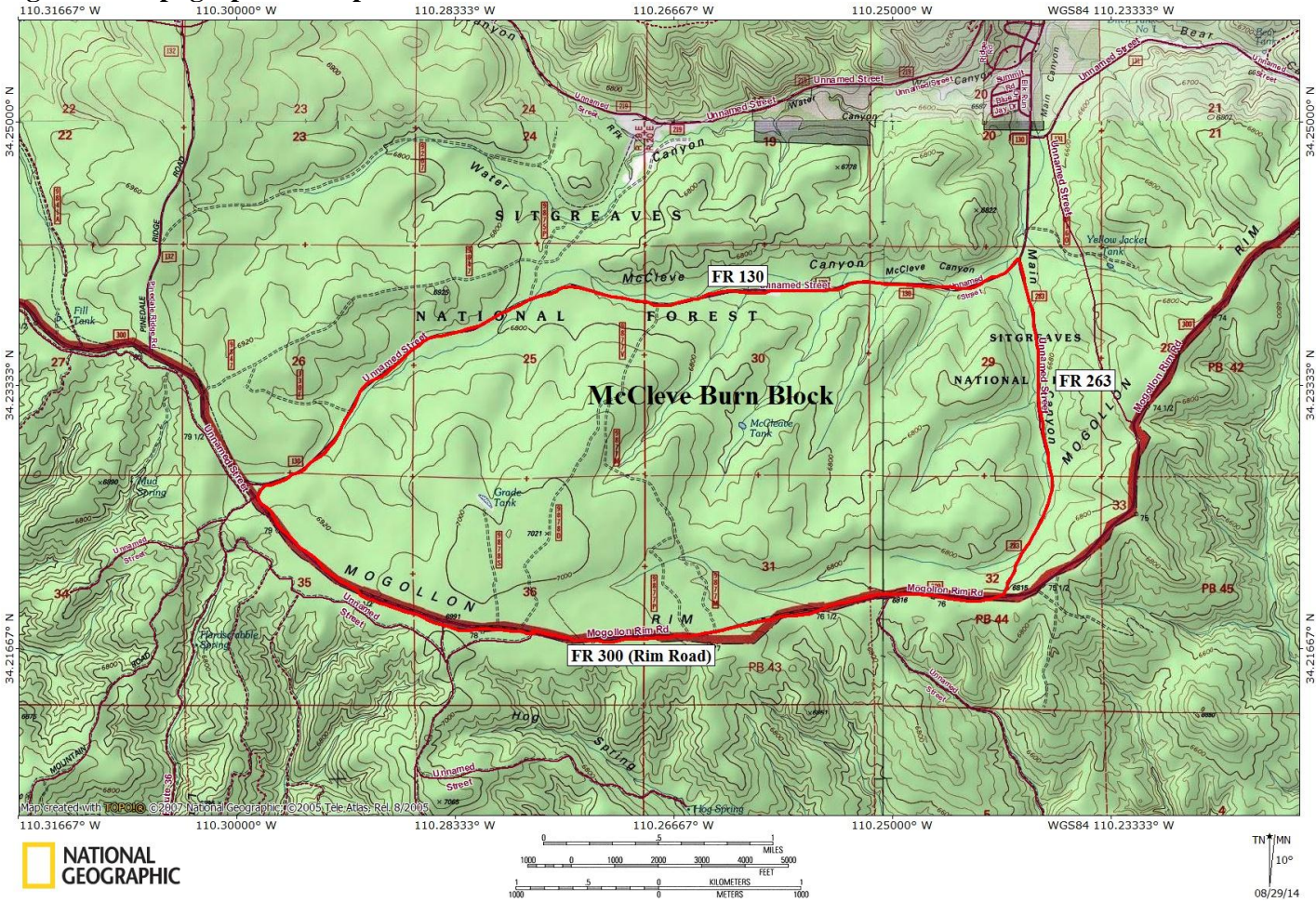


Figure 3: Juniper and oak trees invading open area created by the Rodeo-Chediski Fire in 2002



Figure 4: McCleve Burn block (Fendler ceanothus in foreground)



PROJECT COMPLETION REPORT TO BE FILED BY:
Paul Greer